



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,444	11/20/2003	Gi Hyeong Do	9988.075.00-US	6634
30827 7590 05/14/2008 MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006				
EXAMINER				
GRAVINI, STEPHEN MICHAEL				
ART UNIT		PAPER NUMBER		
3749				
MAIL DATE		DELIVERY MODE		
05/14/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/716,444

Applicant(s)

DO, GI HYEONG

Examiner

Stephen Gravini

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-12 and 15 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 15 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Paper No(s)/Mail Date _____
- 6) ☐ Other: _____

DETAILED ACTION

Preliminary matters

An appeals conference was held on April 30, 2008 and it was determined that the application is not yet ready for appeal. The conferees discussed that the claimed features of operating the exhaust fan drive or driving the exhaust fan might not be expressly disclosed in the primary reference rejection the claimed invention.

It is noted that the arguments with respect to the outstanding restriction requirement is petitionable subject matter and not appropriate for appeal.

Since an Office action was prepared for amended claim subject matter, it is believed this Office action is appropriate because it re-opens prosecution based on the amended claims.

/Steven B. McAllister/

Supervisory Patent Examiner, Art Unit 3749

Claim Rejections - 35 USC § 103

Claims 1-4, 6-9, and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated Sung (US 5,245,764) in view of Takeyama (JP 4-200592). The claims are reasonably and broadly construed, in light of the accompanying specification, to be disclosed by Sung and comprising:

a temperature sensor 6 for sensing an internal temperature of the laundry dryer and outputting a sensed temperature signal indicative of the internal temperature; and

a microcomputer 13 for controlling a plurality of drivers associated with a heater, motor and exhaust fan according to the sensed temperature signal from said temperature sensor, wherein said microcomputer stops the heater and the motor, thereby initiating a cooling procedure; or alternatively:

performing a drying procedure, wherein a motor, a heater and an exhaust fan are driven during the drying procedure at column 1 lines 13-41;

performing a cooling procedure, wherein the motor and heater are stopped during the cooling procedure at column 2 lines 9-21;

sensing an internal temperature of the laundry dryer during said cooling procedure step at column 3 lines 36-55;

comparing the sensed internal temperature with a predetermined temperature value also at column 3 lines 36-55; and

stopping said cooling procedure step if the sensed temperature is lower than a predetermined temperature at column 4 line 42 through column 8 line 18. Sung also discloses the claimed microcomputer controls the plurality of drivers by comparing the sensed internal temperature with a predetermined temperature value as shown on the face of that reference, wherein the predetermined temperature value corresponds to an internal temperature of 50°C at column 6 lines 37-51, wherein the sensed temperature signal indicates the internal temperature of the laundry dryer during the cooling procedure at column 1, wherein said microcomputer drives the exhaust fan during the cooling procedure at column 5 lines 9-22, wherein the sensed temperature signal indicates the internal temperature of the laundry dryer after completion of a drying

procedure at column 2 lines 41-52, wherein the heater, motor, and exhaust fan are driven during the drying procedure at column 3 lines 30-55 and column 4 line 41 through column 8 line 24, the drying procedure being completed before initiation of said cooling procedure step at column 5 lines 46-68, and the step of controlling a plurality of drivers associated with a the heater, motor, and the exhaust fan according to the sensed internal temperature signal at column 6 lines 10-68. Sung discloses the claimed invention, except for the claimed feature of operating the exhaust fan driver or driving the exhaust fan when the motor and heater are stopped. Takeyama, another clothes dryer, discloses that feature in the translated abstract. It would have been obvious to one skilled in the art to combine the teachings of Sung with the exhaust fan driving feature for the purpose of optimizing drying efficiency by minimizing energy input in the drying operation of clothing. Furthermore Sung in view of Takeyama discloses the claimed invention, as rejected above, except for the claimed internal temperature of 50°C. It would have been an obvious matter of design choice to recite the claimed specific internal temperature value, since the teachings of Sung would perform the invention as claimed regardless of the recited claim internal temperature value.

Double Patenting

Claims 1-4 and 6-12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,957,501 in view of claims 1-11 of U.S. Patent No. 6,775,923. Although the conflicting claims are not identical, they are not patentably distinct from each other because assignee's '501 patent, another laundry dryer, claims moisture measurement

Art Unit: 3749

instead of sensing temperature, while assignee's '923 patent claims sensing temperature, as claimed in the present application. It would have been obvious to one skilled in the art to combine the patented moisture measurement with the patented temperature sensing for the purpose of cooling procedure laundry items within a drying environment to prevent damage to the articles to be dried.

Response to Amendments

Applicant's arguments have been fully considered but are moot based on the findings of the most recent appeals conference.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on 571 272 6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3749

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen Gravini/
Primary Examiner, Art Unit 3749